

Listing of the claims:

1. (Currently Amended) Melting furnace having an electric or external heating system for storing melts and having a melt discharge outlet comprising a cooling device, characterised in that an instrument for mechanically removing plugs blocking the melt discharge outlet is arranged at the melt discharge outlet, the instrument for removing plugs being mounted at the side of the melt discharge outlet and not blocking the melt discharge outlet when in a rest position, and the instrument for removing the plugs can be moved in the plane perpendicular to the outflow direction of the melt.

2. (Cancelled.)

3. (Original) Device according to claim 12, characterised in that the rest position is cooled and shielded from the heat radiation heating the melting furnace.

4. (Currently Amended) Device according to ~~one of the preceding claims~~ claim 1, characterised in that the instrument for removing the plugs has an internal cooling system.

5. (Cancelled)

6. (Currently Amended) Device according to the ~~preceding~~ claim 4, characterised in that the instrument can be moved in a circular path.

7. (Currently Amended) Device according to ~~one of the two preceding claims~~ claim 6, characterised in that the instrument has a hydraulic drive mechanism.

8. (Currently Amended) Device according to ~~one of the preceding claims~~ claim 1, characterised in that the instrument for removing the plugs

is sword-shaped, the cutting edge being aligned in the plane perpendicular to the outflow direction of the melt.

9. (Currently Amended) Device according to ~~one of the preceding claims~~ claim 1, characterised in that the melt discharge outlet has a diameter of 200 mm to 800 mm, preferably 500 mm.

10. (Currently Amended) Device according to ~~one of the preceding claims~~ claim 1, characterised in that a water-cooled copper ring is arranged above the melt discharge outlet.

11. (Currently Amended) Device according to ~~one of the preceding claims~~ claim 1, characterised by a recording mechanism which is triggered by the instrument for removing the plugs in the rest position, for detecting this position of the instrument for removing the plugs.

12. (Currently Amended) Method for removing plugs which have formed on a melt discharge outlet given according to ~~one of claims~~ claim 1 to 10 and which are blocking the melt discharge outlet, characterised in that the plugs are removed by breaking- or knocking- or splitting-away with the aid of the instrument for removing plugs given according to ~~one of claims~~ claim 1 to 11.

13. (Original) Method according to claim 12, characterised in that the knocking-, breaking- or splitting-away process is undertaken periodically with cycle times of 1 to 3 seconds.

14. (Currently Amended) Method according to claim 12 ~~or 13~~, characterised in that the instrument for removing plugs is moved in a plane perpendicular to the outflow of the melt.

15. (Currently Amended) Method according to claim 12, ~~13 or 14~~, characterised in that the instrument for removing plugs moves in a circular path which covers the entire melt discharge.

16. (Currently Amended) Method according to ~~one of claims~~ claim 12 to 15, characterised in that the instrument for removing plugs is moved hydraulically.

17. (Currently Amended) Method according to ~~one of claims~~ claim 12 to 16, characterised in that the instrument for removing the plugs triggers in its rest position a mechanism for recording that it has assumed the end position, and when the rest position has not been assumed by the instrument for removing the plugs within a preset time interval, a more intensive mechanism for removing plugs is switched on or a warning signal is emitted.